



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,359	10/24/2003	Mark T. Devlin	0013.0035	1665

63970 7590 09/24/2007
MH2 TECHNOLOGY LAW GROUP (Cust. No. w/NewMarket)
1951 KIDWELL DRIVE
SUITE 550
TYSONS CORNER, VA 22182

EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

MAIL DATE DELIVERY MODE

09/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/693,359

Applicant(s)

DEVLIN ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-8 and 11-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8 and 11-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/30/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 6/25/07.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 4-5, 7-8, and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S. 2002/0119895) in view of Burjes et al. (U.S. 4,755,311) and *STN* structure.

The rejection is adequately set forth in paragraph 5 of the office action mailed 3/26/07 and is incorporated here by reference.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. in view of Burjes et al. and *STN* structure as applied to claims 1, 4-5, 7-8, and 11-20 above, and further in view of Norman et al. (U.S. 5,942,470).

The rejection is adequately set forth in paragraph 6 of the office action mailed 3/26/07 and is incorporated here by reference.

5. Claims 1, 4-8, and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. (U.S. 5,942,470) in view of Cook et al. (U.S. 2002/0119895) and *STN* structure.

The rejection is adequately set forth in paragraph 7 of the office action mailed 3/26/07 and is incorporated here by reference.

6. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laing et al. (U.S. 4,710,100) in view of Cook et al. (U.S. 2002/0119895).

The rejection is adequately set forth in paragraph 8 of the office action mailed 3/26/07 and is incorporated here by reference.

Response to Arguments

7. Applicants argue that each of the rejections utilizing Cook et al., i.e. Cook et al. in view of Burjes et al. and *STN* Structure or Laing et al. in view of Cook et al. is not proper given that the examiner has not established a *prima facie* case of obviousness. Applicants argue that there is no motivation to pick and choose all the claimed elements with reasonable expectation of success from Cook et al.

However, while it is agreed that one must choose thiophosphorous acid ester salt over thiophosphorous acid ester, then monothiophosphorous acid over phosphorodithioic acid, then amine over metallic, then polyamine over monoamine, and finally N-oleyl-1,3-diaminopropane, the fact remains that Cook et al. do explicitly disclose combination of hydrocarbylamine, i.e. N-oleyl-1,3-diaminopropane, identical to that presently claimed and alkylphosphoro(mono)thioate (as explicitly disclosed by Burjes et al. that is referred to by Cook et al.) identical to that presently claimed.

Further, while choices must be made to arrive at such combination, it is noted that each choice is not made from amongst a vast number of alternatives but from number of alternatives as small as two. Thus, it would have been obvious to one of ordinary skill in the art to utilize amine salt of monothiophosphoric acid in Cook et al., and thereby arrive at the claimed invention. Further, given that Cook et al. explicitly disclose the presently claimed load carrying capacity enhancing combination, one of ordinary skill in the art would have a reasonable expectation of success.

Applicants argue that the examiner utilizes impermissible hindsight.

However, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicants argue that the examiner has mischaracterized the teachings of Cook et al.

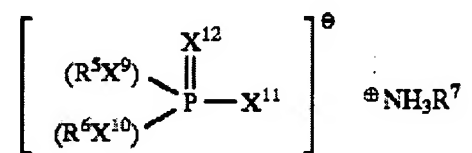
However, attention is drawn to paragraph 86 of Cook et al. that discloses polysulfide such as sulfurized olefin corresponding to presently claimed (a), paragraph 93 that discloses dithiocarbamate, i.e. friction modifier corresponding to presently claimed (c), paragraphs 121, 122, 129, and 141 that disclose amine salt of monothiophosphoric acid wherein the amine includes N-oleyl-1,3-diamonopropane, i.e. load carrying capacity enhancing combination,

Art Unit: 1714

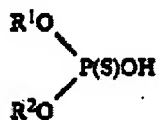
corresponding to presently claimed (b), and paragraphs 174, 175, 177, and 179 that discloses diluent oil or base oil corresponding to presently claimed (d). Thus, it is clear that Cook et al. do in fact disclose concentrate and composition as presently claimed.

With respect to the rejection utilizing Norman et al. in combination with Cook et al. applicants argue that that there is no disclosure in Cook et al. that fatty diamine such as N-oleyl-1,3-diaminopropane as presently claimed, is equivalent and interchangeable with alkyl amine as disclosed by Norman et al. and that Cook et al. merely discloses several compounds of which fatty diamine and alkyl amine are two. Applicants also argue that one of ordinary skill in the art would recognize the different properties that fatty diamine would impart as opposed to alkyl amine.

However, it is noted that Norman et al. disclose the use of amine salt of one or more partial ester of one or more acids of phosphorous of the formula:



where R^5 - R^7 are each hydrocarbyl group and X^9 - X^{12} are each oxygen or sulfur and wherein the amine salt includes alkyl amine and that Cook et al. discloses amine salt of monothiophosphoric acid of the formula:



where R^1 and R^2 are each hydrocarbyl groups such as alkyl group containing 1-30 carbon atoms and wherein Cook et al. disclose that such amine includes not only alkyl amine but also N-oleyl-1,3-diaminopropane. Thus, in terms of amine utilized with monothiophosphoric acid, it is the examiner's position that Cook et al. do disclose the equivalence and interchangeability of using fatty diamine with using alkyl amine. That is, given that Cook et al. disclose that alkyl amine and fatty diamine, i.e. N-oleyl-1,3-diaminopropane, are known amines for the amine salt of monothiophosphoric acid and given that Cook et al. discloses that alkyl amine and N-oleyl-1,3-diaminopropane are each used with monothiophosphoric acid in composition for gears, Cook et al. has recognized the equivalence of these amines which includes that presently claimed.

In light of the above, given that Norman et al. and Cook et al. are drawn to the same field of endeavor, i.e. composition for gears, and absent evidence to the contrary, it therefore would have been obvious to one of ordinary skill in the art to utilize fatty diamine that is N-oleyl-1,3-diaminopropane in Norman et al. While applicants argue that fatty diamine and alkyl amine have different properties, there is no evidence to support such position and no evidence how, or if, such difference would effect the properties of the presently claimed concentrate or composition. It is noted that case law holds that mere substitution of an equivalent (something equal in value or meaning as taught by analogous prior art) is not an act of invention; where equivalence is

known to the prior art, substitution of one equivalence to another is not patentable, *In re Ruff* 118 USPQ 343 (CCPA 1958).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

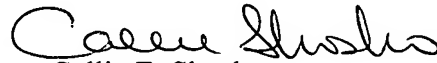
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
9/14/07